



Indoor Air Quality Tools for Schools Program

Indoor Air Quality (IAQ)

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NEWS AND EVENTS

- **EPA funding opportunity — apply by July 26, 2010.** The National Environmental Education Act authorizes EPA to fund a National Environmental Education Training Program. The purpose of this program is to deliver environmental education training and long-term support to teachers and other education professionals in the United States to enable them to teach effectively about environmental issues. EPA will be awarding one cooperative agreement to fund this five-year national program. For more information, detailed eligibility requirements and the scope of work for this program, visit <http://www.epa.gov/education/educate/solicitation.html>.
- **Become an *IAQ Tools for Schools* Award winner!** Applications for EPA's competitive National Excellence, National Model of Sustained Excellence and National *IAQ Tools for Schools* Connector Awards are now being accepted. **Apply by October 8, 2010**, to be considered.
- **View the IPM Webinar.** A video of the June 3, 2010, Integrated Pest Management in Schools webinar is available to view at <http://www.epa.gov/iaq/schools/webconferences.html>, as well as a PDF of the slide presentation, a Question and Answer document and other resources from the expert speakers.
- **New ASHRAE publication available — *Indoor Air Quality Guide: Best Practices for Design, Construction, and Commissioning*.** Available free of charge, the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) published the guide for all professionals concerned with IAQ in commercial and institutional buildings. Read it to learn best practices for all aspects of IAQ building design, commissioning and construction, and access IAQ strategies, diagrams, case studies and more. Download the IAQ Summary Guidance at <http://www.ashrae.org/publications/page/1936>.
- **More EPA funding available — apply by July 26, 2010.** EPA's Office of Pesticide Programs (OPP), in coordination with the EPA Regional Offices, announces the availability of approximately \$530,000 for assistance agreements to further the pesticide risk reduction goals of the Pesticide

BE AN IPM PEST DETECTIVE — NEW VIDEO GAME FOR STUDENTS AND TEACHERS!



Eureka Elementary School has serious pest problems including flies, cockroaches, rodents, ants and spiders. Fortunately these pests are the virtual kind, living inside a new online video game designed to teach students and teachers about IPM. Developed by University of Nebraska-Lincoln Extension, *Pest Private Eye and the Case of IPM in Schools* is a valuable addition to any IPM education plan. Targeted to 4th - 6th graders, the website also includes a teacher's guide with additional activities, lesson plans, pest profiles and a Pest Private Eye comic book. For more information, visit <http://schoolipm.unl.edu/pestpi>.

Environmental Stewardship Program (PESP). Proposed projects must address implementation of integrated pest management approaches that reduce the risks associated with pesticide use in an agricultural or non-agricultural setting and demonstrate the importance and relevancy of the project to the goals of PESP. For eligibility requirements and more information, visit <http://www.epa.gov/pesticides/grants/proposals/2010-opp-pesp-rfp-0610.pdf>

A NATIONAL PARTNERSHIP EFFORT — EPA'S *PESTWISE* PROGRAM

Every day, 49 million children attend school in the United States, supported by nearly seven million teachers and staff. But they're not alone. Schools are also frequented by a number of pests including cockroaches, mice, dust mites and more — including many common indoor environmental asthma triggers. These triggers increase the number of students and staff impacted by asthma, which is an epidemic among children — impacting more than 9 percent of children nationally with rates as high as 25 percent or higher in some communities. Considering the number of students affected by asthma and the amount of time children spend in school, implementing an IAQ management program is essential for creating a healthy and safe learning environment.

Integrated pest management (IPM) is a prevention-based, highly effective approach proven to reduce pest complaints and pesticide use by up to 90 percent in schools and other public buildings. IPM practices, such as sanitation and identification, also improve food safety, fire safety, energy conservation and indoor air quality. As one of EPA's Six Technical Solutions for effective school IAQ management, IPM is critical to effectively addressing indoor air quality and environmental health risks in schools.

EPA's [IPM in Schools Program](#), part of the Office of Pesticide Program's ***PestWise***, aims to reduce the risk that pesticide exposure poses to children and school employees by promoting sensible applications of pesticides around schools. It is a national partnership effort to make safe and effective pest management a standard practice in all of our nation's schools. IPM in Schools Program partners aim to:

- Make schools safer by decreasing pesticide exposure and associated risks.
- Increase the number of schools adopting verifiable IPM practices, with all schools in the United States implementing IPM by 2015.
- Minimize use of pesticides.
- Make schools inaccessible to and uninhabitable by pests.
- Increase IPM awareness among school districts, school staff, parents and students.

Want to learn more about starting an IPM program in your school district? Become a partner of EPA's PestWise by joining the Pesticide Environmental Stewardship Program (PESP). To learn more about exchanging information, sharing best practices, technical assistance and funding and grant opportunities, visit <http://www.epa.gov/pestwise>. To view a list of EPA regional school IPM contacts, visit <http://www.epa.gov/opp00001/ipm/ipmcontacts.htm>.

FIVE STEPS TO EFFECTIVE INTEGRATED PEST MANAGEMENT

Whether your district contracts for integrated pest management (IPM) services or operates an in-house IPM program, there are some common challenges facing IPM programs in every district — and ways you can address them. Here are five simple steps outlined by the IPM Institute to make your district's IPM program effective and sustainable.

1. Maintain an IPM policy and an IPM plan for your district. An IPM policy is typically a brief, one- to two-page guidance document that explicitly states your district's commitment to IPM. An IPM plan, on the other hand, is a detailed document that outlines how pests are managed in your district. The plan includes who is involved with pest management and their roles. For example, who can purchase and use pesticides, procedures for handling specific pest problems, and guidelines for pesticide use (e.g., what pesticides can be used and where, or how and when can they be applied). Some states require districts to have an IPM plan, but even if it is not mandated in your state, it is

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Can't find a past *IAQ Tools for Schools* Update in your e-mail inbox? No problem! Wish you could read past editions? You can! [Visit the Update archive](#) to access printable (PDF) versions of all past editions on the *IAQ Tools for Schools* website.

JOIN THE DISCUSSION

The Schools IAQ Connector Listserv makes it easy to connect directly with your peers to share information and communicate over e-mail and on the Web. **Join the listserv today** by sending a blank e-mail message to schools_iaq_connector_subscribe@lists.epa.gov. Then, check your e-mail inbox for your confirmation and membership details.

good practice to create a plan and update it at least once a year. This can help clarify expectations in the event of staff transitions, when putting together bids for contractors, and in day-to-day operations.

Examples of IPM policies and plans can be found on the School IPM 2015 [Resources](#) page. Additionally, the Safer Pest Control Project and the University of Florida offer helpful resources for developing IPM plans: an [IPM Plan Creation template](#) (MS Word), an [IPM Program Evaluation template](#) (MS Word) and a [School IPM Model Contract](#) (Adobe PDF).

- 2. License and train any applicators in your district to use pesticides properly.** Even though school IPM programs often result in substantial reductions in pesticide use, pesticides remain an important tool. Of course, anyone applying pesticides in your school should be trained and licensed to apply them safely. This training can also help IPM coordinators better understand these procedures, even if they do not apply pesticides themselves. Furthermore, anyone playing a key role in pest management should be knowledgeable about pest biology, sanitation and exclusion options. You can find a list of school [IPM training materials](#) and a [calendar of training events](#) on the [School IPM 2015](#) website.
- 3. Verify that any contractors providing pest management services are state-licensed and understand IPM.** One way to do this is to hire contractors that are certified by a third-party program that promotes effective, prevention-based pest control while minimizing pesticide use and risk. Three third-party certifications, [EcoWise](#), [Green Pro](#) and [Green Shield Certified](#), currently operate with certified practitioners in many states. If a certified pest management professional (PMP) is not available in your area, you can request that your local PMP become certified. Certification could be included in your bid specifications to emphasize that third-party certification is valued in your district and to alert potential contractors that your district demands a high level of expertise.
- 4. Restrict blanket purchase orders with vendors or local stores that sell pesticides to authorized purchasers.** The convenience of [blanket purchase orders](#) can lead to miscommunication when pesticides are purchased and used by coaches, athletic directors or other school staff without the knowledge of the IPM coordinator. Review all the ways that pesticides might be arriving on your campuses. Consider including restrictions in blanket purchase orders with pesticide vendors, including local stores, so that no district staff may purchase pesticides without approval from the operations department, or specify that only certain staff members may purchase pesticides.
- 5. Consider pest management in new building and renovation design and construction.** At one IPM workshop, the school district host recounted spending thousands of dollars to eliminate bird roosts that could have been easily avoided in the planning and design phase. Other pest-conducive designs fail to provide for tight door seals and sweeps which are extremely effective in reducing pest complaints, or place dumpsters too close to the building where they draw flies and stinging insects to entryways. To avoid this, licensed staff or pest management professionals should be included in any new building project, including site planning, design and construction. Remember, even with the most sophisticated designs, unless pest management is part of the construction process, pests can move in well before teachers and students. In fact, many new buildings have opened with built-in mouse populations. Changing landscape features can expose habitats for rodents and help drive them into buildings for shelter. Be sure to explicitly include IPM steps and roles in design and construction in your IPM plan to help avoid these scenarios.

A PEST MANAGEMENT PROFESSIONAL'S PERSPECTIVE ON IPM IN SCHOOLS

For many school systems, hiring a Pest Management Professional (PMP) makes good economic sense. Contracting options range from regular inspections to on-call service when a professional is needed to address a problem. To better understand the lives of PMPs working in schools, EPA's [PestWise](#) program spoke with Mike Orlino of [Superior Pest Elimination](#) about how his company works with New York City schools.

Superior Pest Elimination works with over 70 schools in the New York and New Jersey areas. Orlino relates obstacles when working in schools or any facilities that provide daily food services to many individuals. "Commercial kitchens are very challenging to keep pest-free," says Orlino. "The volume of food and other products moving in, and food waste moving out, can be enormous." These school kitchens range from 1,500 to 2,000 square feet in size and often contain 20 to 30 refrigerators. To track pest presence, Superior relies on thorough inspection and monitoring. Technicians regularly and strategically take apart equipment, such as stainless steel drawers, to inspect for signs of insects that can take shelter inside. Taking the time to inspect areas that are hard to access is often essential to resolving a problem.

Like many districts around the country, schools in New York City frequently have construction projects nearby, which can disturb outdoor rodent habitats and drive them inside school buildings in search of food and new shelter. According to Orlino, his team "can rodent-proof anything" — from steam pipe chases to radiators to exhaust vents — using non-chemical methods, including metal mesh, screening and all types of sealants designed for specific surfaces. Superior technicians use mobile devices — handheld computers that scan bar codes on traps — and monitoring stations to produce a detailed report for each school building. School staff can then log in to the system and view work orders and actions taken by technicians to assess and solve the problem.

Monthly visits from PMPs should not be the only line of defense in most schools. Some of New York City's school buildings exceed 80,000 square feet, an enormous amount of area to cover. Orlino and his team communicate regularly with school staff to educate them about pest biology, explain why pests are there, and show them how to resolve and prevent pest problems.

Superior prides itself with having a [Green Shield Certified](#) service. Third-party certifications like Green Shield offer credentials that require a higher level of training and performance for PMPs. Check the third-party certification program websites to find certified PMPs. If none are available in your area, remember that you can ask your local PMP to become certified.

Don't let cost concerns keep you from requesting an IPM service. While a higher level of service can certainly merit a higher rate, many PMPs will work with you to put together a program that will fit within your budget. According to the *School IPM 2015* report, school districts that have implemented IPM have reduced pesticide use and pest complaints by 70 to 90 percent. Fewer complaints means less time spent dealing with them, and results in more satisfied staff and students. Improving sanitation and exclusion also improves fire safety, energy savings and food safety. Don't discount these hidden savings when considering your pest management budget.

INSPIRING ACTION: IAQ DESIGN CHALLENGE SCHOOL DISTRICT UPDATE — SCHODACK CENTRAL SCHOOL DISTRICT

Since participating in the [IAQ Tools for Schools National Symposium](#) in January 2010, Schodack Central School District of Castleton-on-Hudson, New York, has overcome financial hardships, including resource and staffing cuts. Yet despite these setbacks, Schodack's IAQ management team has used this obstacle as an opportunity to engage the entire school district and build a sustainable IAQ management program.

This fall, with the support of its new superintendent, the district plans to launch a groundbreaking student-led initiative that will integrate IAQ management with science curricula at the high school level. Empowered with IAQ education, students will assess and rate their classrooms' indoor environmental quality on a weekly and monthly basis. Eventually, the district plans on expanding this inspection program to junior high and elementary facilities as well. "This is a tremendous opportunity to teach the entire school community about the importance of clean indoor air," says Matt LaClair, Superintendent of Buildings and Grounds.

Stay tuned for more updates from all five of our [IAQ Design Challenge School Districts](#) as they work to develop effective, sustainable IAQ management programs in their Districts.

OTHER IPM RESOURCES

[EPA's IPM in Schools Website](#)

[Pest Control in the School Environment: Adopting IPM Document](#)

[EPA's PestWise Program](#)

[National School IPM Information Source](#)

[School IPM Directory](#)

[School IPM 2015: A Strategic Plan for Integrated Pest Management in Schools in the United States](#)

HAVE YOUR QUESTIONS ANSWERED!

Is there a topic you want to see covered in an *IAQ Tools for Schools* Update? Need more information or have a quick question? Do you have suggestions for a Webinar, an Update feature, or are you simply curious about an IAQ topic and would like more information? If so, send us an e-mail at IAQTfSConnector@cadmusgroup.com.

Share YOUR news and events! Send us information to share with the school IAQ community. It could be featured in the next Update. E-mail your news to IAQTfSConnector@cadmusgroup.com.

The *IAQ Tools for Schools* Program is a comprehensive resource to help schools maintain a healthy environment in school buildings by identifying, correcting, and preventing IAQ problems. Learn more about the *IAQ Tools for Schools* Program at www.epa.gov/iaq/schools.